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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MARSH FISCHMANN & BREYFOGLE LLP
3151 S. Vaughn Way, Suite 411
Aurora, CO 80014

EXAMINER	
WYSZOMIERSKI, GEORGE P	
ART UNIT	PAPER NUMBER
1742	

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,723	KODAS ET AL.	
	Examiner	Art Unit	
	George P. Wyszomierski	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/28/2005 (RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-122* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-122* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☒ Interview Summary (PTO-413) ~~Paper No(s)/Mail Date. _____~~.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

1. The Request for Continued Examination (RCE) under 37 CFR 1.114 filed November 28, 2005, including the fee required under 37 CFR 1.17(e) has been received and is considered proper. Prosecution continues as follows.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7-9, 13, 14, 16-19, 22, 31, 32, 34-36, 40, 41, 43, 64-67, 69-71, 75, 76, 78-81, 84, 93-95, 97-99, 103, 104, 106-109, 112, 121 and 122 are rejected under 35 U.S.C. 102(e) as being anticipated by Bi et al. (PG Pub. No. 2005/0158690).

Bi discloses a method of forming particulate materials by combinatorial synthesis, i.e. by reacting various precursor reactants and subsequently reacting an altered version of those reactants, and continuing this process until a material having the desired composition, structure, and properties is produced. The process of altering the various reactants and conditions as described by Bi is consistent with the presently claimed "real-time basis" limitations. With respect to particles "dispersed in a gas", Bi paragraph [0072] and [0076] indicates that carrier gases may be used in the prior art to deliver reactants into this system. The particles made can be evaluated for desired qualities/properties either in the reactor or after separation from the reactor; see Bi paragraph [0042]. Specific disclosure of various aspects of the instant claims can be found in the Bi disclosure a follows:

a) Claims 2, 4, 5, 32, 66, 67, and 95 (parameters varied)--See Bi paragraph [0041].

b) Claims 7, 8, 69, 70, 97 and 98 (flowable liquid)--See Bi paragraph [0072].

c) Claims 9, 71, 99 (dry powder)--See Bi paragraph [0072], esp. the disclosure of "volatile solids".

d) Claims 13, 41, 75 and 103 (multiple collection locations)--See Bi paragraph [0082], [0089] and [0090].

e) Claims 14, 36, 76 and 104 (heating)--See Bi paragraph [0102].

f) Claims 17, 79, 107 (moving substrate)--See Bi paragraph [0090].

g) Claims 18, 19, 64, 80, 93 and 108 (multiple precursors and/or making of composite products)--See Bi paragraph [0040], [0045], and [0063]-[0066].

h) Claims 19, 22, 31, 81, 84, 109 and 112 (making metals, alloys, inorganic compounds)--See Bi paragraph [0045].

i) Claims 34 and 35 (volatile and/or gas phase precursor)--See Bi paragraph [0072].

j) Claims 121 and 122 (ultrasonic nozzle and transducer--See Bi paragraph [0076].

Thus, the Bi disclosure is held to fully meet the limitations of the process as defined by the instant claims.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 6, 10-12, 15, 23-25, 27-30, 33, 37-39, 42, 44-46, 48-60, 68, 72-74, 77, 85-87, 89-92, 96, 100-102, 105, 113-115, and 117-120 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bi et al.

The Bi reference, discussed supra, does not specifically disclose the particular aspects of the claimed invention as recited in these claims. However, the claimed invention is not seen as patentably distinct from Bi because:

a) With regard to claims 6, 33, 68, and 96, the degree of variation as claimed would fall within the generic disclosure of varying of the parameters in the process of Bi, and one of skill in the art would utilize a degree of variation of these parameters based both on the desired outcome and the in-process measurements of properties as done in the prior art process.

b) With regard to claims 10-12, 37-39, 72-74, and 100-102, these claims define only apparatus limitations. Such limitations do not render a process patentable when the actual steps of the process are known in the art; compare *In re Sweeney* (72 USPQ 501). A similar argument can be made with respect to the "heated reactor" limitation of claim 44.

c) With respect to claims 15, 42, 77 and 105, while Bi does not specify making a linear feature as recited in the instant claims, the nozzles and/or collectors of Bi, being movable in a plurality of directions, would be easily configured by one of skill in the art so as to result in a linear shaped product.

d) With respect to claims 23-25, 27, 48-60, 85-87, 89, 113-115 and 117, while Bi does not specifically recite making solder alloys, electrocatalyst materials, or phosphor materials, these materials fall within the categories of materials disclosed by Bi paragraph [0045] as being suitable for production in the prior art process.

e) With respect to claims 28-30, 90-92, and 118-120, one important aspect of the Bi disclosure involves control of the particle size; see paragraphs [0124] and [0129] of Bi. It would

thus have been an obvious expedient for one of ordinary skill in the art to utilize the Bi process to make particles within the particular size ranges as recited in the instant claims.

f) With respect to claims 45 and 46, Bi paragraph [0141] indicates that the prior art process may include measuring of the particular properties recited in these claims.

Thus, a prima facie case of obviousness is established between the disclosure of Bi et al. and the presently claimed invention.

6. Claims 20, 21, 82, 83, 110 and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bi et al., as above, in view of Schultz et al. (U.S. Patent 5,985,356).

The Bi disclosure is directed primarily to the production of inorganic materials, as opposed to the organic materials presently claimed. Schultz, column 7, lines 34-60 indicates that it was known in the art, at the time of the invention, to make organic materials by combinatorial synthesis, i.e. by a process analogous to that of Bi. Further, the Bi reference itself incorporates the Schultz disclosure by reference; see Bi paragraph [0049]. Thus, the Schultz et al. disclosure would have rendered it obvious for one of ordinary skill in the art to produce organic materials by the process as disclosed by Bi et al.

7. Claims 26, 47, 61-63, 82, 88, 110 and 116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bi et al., alone or in view of Gupta et al. (U.S. Patent 6,620,351).

Bi et al. does not disclose the production of pharmaceutical compositions as recited in the instant claims. However,

a) It is unclear what products would be encompassed by the instant claims, i.e. many metal and alloy products as disclosed in paragraph [0045] of Bi are known to have medicinal

uses, and for at least these products the disclosure of Bi would have suggested a process as presently claimed to one of ordinary skill in the art.

b) The Gupta patent indicates that it was known in the art, at the time of the invention, to make pharmaceutical compositions by applying a dispersion including two or more materials which react on a surface to form the desired substance, while further varying a reactor condition in this process in order to produce a differential condition in the final products. This is analogous to the process as disclosed by Bi. Therefore, the examiner's position is that the Gupta et al. patent would have taught one of ordinary skill in the art to modify the Bi et al. process to make pharmaceutical compositions, in accord with the instant claims.

8. Claims 1-5, 13-15, 18-21, 24-27, 31, 40-43, 64-67, 75-77, 80-83, 86-89, 93-95, 103-105, 108-111, 114-117, 121 and 122 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-85 of copending Application No. 09/821,848. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '848 application essentially define certain embodiments of the process as set forth in the instant claims, i.e. preferably an embodiment in which the materials produced and analyzed include a layered linear system comprising polymer and/or electrocatalyst materials. The steps of the process as defined in the instant claims are performed in the same order and for the same purpose as in the '848 claims. Because practicing the process according to the '848 claims would necessitate practicing the process of the instant claims, no patentable distinction is seen between the two sets of claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); In re Longi, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); In re Van Ornum, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); In re Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In re Thorington, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. With regard to Applicant's remarks as submitted with the amendment of 10/17/2005, which was entered upon filing of the present RCE, Applicant presents arguments as to why the instant claims would be patentable over the Schultz and/or Gupta references alone. Because the newly cited Bi reference is clearly more pertinent to the claimed invention than any of the previously applied prior art, the rejections based on Schultz or Gupta alone have been withdrawn, and new rejections made based on Bi et al., alone or in view of Schultz or Gupta et al.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the new central facsimile number, (571)-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700

GPW
February 3, 2006